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CTE FACTS

CTE FACTS is published monthly during the school year and highlights informative educational statistics related to Career and Technical Education (CTE) and its programs.

In this issue, we are going to highlight a number of facts found through research that demonstrate the value of CTE. The main focus centers on the academic success of CTE students and the occupational outlook in CTE related fields. This information is primarily provided by, and permission granted from, the Association for Career and Technical Education.

WHAT IS KNOWN ABOUT THE EFFECTIVENESS OF CTE AT THE NATIONAL LEVEL?

- ◆ Nearly all high school students (96.6 percent) take at least one CTE course.¹
- ◆ About one-fourth of all high school seniors are “concentrators” (earning at least three credits in a single CTE program), including fully 15 percent of all high school seniors with a GPA of 3.5 or higher.²
- ◆ The 2004 National Assessment of Vocational Education (NAVE) Final Report³ found that occupational concentrators increased their 12th grade test scores on the National Assessment of Educational Progress (NAEP) by about 8 scale points in reading and 11 points in math, while students who took little or no career and technical education coursework increased their reading on NAEP by only 4 points and showed no improvement in math achievement.
- ◆ During the 1990s, CTE concentrators participated in more rigorous academic coursework, and, when compared with general students, CTE students are taking more and higher level math and science, found the National Research Center for Career and Technical Education (NRCCTE) in a 2003 report.⁴

CTE Vision: Ensure a dynamic workforce by fully developing every student's career and academic potential.

CTE Mission: Prepare Arizona students for workplace success and continuous learning.

¹National Assessment of Vocational Education: Final Report to Congress, p. 270.

²Gary Hoachlander, “Ready for College and Career,” *The School Administrator*, January, 2006: 4

³Department of Education, Office of the Under Secretary, Policy and Program Studies Service. *National Assessment of Vocational Education: Final Report to Congress*. Washington, DC, 2004.

⁴Stone, J. “Research to Practice.” The National Research Center for Career and Technical Education, 2003. (as cited in National Association of State Directors of Career and Technical Education Consortium “Indicators of Success: CTE and Research”)

- ◆ CTE concentrators take more and higher level math than their general track counterparts, according to a 2002 National Center for Career and Technical Education (NCCTE) study.⁵
- ◆ Students who complete a rigorous academic core coupled with a career concentration have test scores that equal or exceed “college prep” students. These dual-concentrators are more likely to pursue postsecondary education, have a higher grade point average in college and are less likely to drop out in the first year, reports the Southern Regional Education Board.⁶
- ◆ In 2004 the NAVE Independent Advisory Panel found that the number of academic courses taken by occupational concentrators increased by nearly 30 percent from 1982 to 1998⁷, while from 1990-2000 the number of CTE students completing the New Basics curriculum (4 years of English and 3 years each of math, science, and social studies) rose from 19 percent to 51 percent, according to the 2004 NAVE Final Report.⁸
- ◆ According to the 2004 NAVE Final Report⁹, employment growth in occupations requiring a vocational associate’s degree (30%) is projected to be more than double overall employment growth (14%) through 2008.
- ◆ Nearly one-third of the fastest growing occupations will require an associate’s degree or a postsecondary vocational certificate, according to a 2004 Bureau of Labor Statistics (BLS) report.¹⁰
- ◆ Nearly 75 percent of employers report severe conditions when trying to hire qualified workers, 40 percent say that applicants are poorly skilled, and 30 percent say that applicants have the wrong skills for available jobs, according to a 2002 survey by the U.S. Chamber of Commerce Center for Workforce Preparation.¹¹ The National Association of Manufacturers found similar results in a 2001 survey¹², with more than 80 percent of manufacturers experiencing a shortage of qualified job candidates.
- ◆ Students in rural schools are more likely to be involved in CTE, the 2004 NAVE Final Report¹³ found. Rural schools serve 32.2% of all public high school graduates but 40.1% of all occupational concentrators.

⁵ Stone, J., and Aliaga, O. *Career and Technical Education, Career Pathways and Work-Based Learning: Changes in Participation 1997-1999*. St. Paul, MN: National Center for Career and Technical Education, 2002. (as cited in Stone, J. *Career and Technical Education and Student Engagement, Achievement, Transition, and Labor Market Outcomes* DRAFT. National Research Center for Career and Technical Education.

⁶ Southern Regional Education Board. “Facts About High School Career/Technical Studies.”

<http://www.sreb.org/programs/hstw/career/Facts_About_HS_Career.pdf>

⁷ NAVE Independent Advisory Panel. *Earning, Learning and Choice: Career and Technical Education Works for Students and Employers*. U.S. Department of Education, 2004, p.4.

⁸ *National Assessment of Vocational Education: Final Report to Congress*, p.94

⁹ *Ibid*, p. 7.

¹⁰ Bureau of Labor Statistics, U.S. Department of Labor. *Occupational Outlook Handbook: 2004-05 Edition*. 2004.

<<http://stats.bls.gov/oco/home.htm>>

¹¹ Center for Workforce Preparation, U.S. Chamber of Commerce. “Keeping Competitive: Hiring, Training, and Retaining Qualified Employees. 2002.” <<http://www.uschamber.com/cwp/publications/reports/general.htm>>

¹² National Association of Manufacturers. *The Skills Gap 2001*. <http://www.nam.org/s_nam/doc1.asp?CID=200958&DID=224443>

¹³ *National Assessment of Vocational Education: Final Report to Congress*, p. 41.

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